CDF Operations Report

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CDF Weekly Meeting

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Outline:

- Store summary
- Operational improvements
- Woes
- Access tasks

Store Summary

Store	Start	Duration (hours)	Init. lumi (10^{30})	Delivered lumi (nb^{-1})	Live int. lumi (nb^{-1})	Int Lumi w/Si (nb^{-1})	Comments
4057	3/23 W-Th	23.0	80.7	3209.9	2895.0 90.2%	2598.6 81.0%	Si in after 1 hr, DAQ smooth
4058	3/24 Th-F	23.0	83.9	3279.4	2573.2 78.5%	1371.4 41.8%	Si in after 1 hr, 3 DAQ probs.
4059	3/25 F-Sa	25.1	96.7	3813.4	3027.4 79.4%	2791.1 73.2%	Si in after 1 hr, RTserver
4060	3/26 Sa-Su	23.5	73.5	3004.8	2545.4 84.7%	2502.4 83.3%	Si in from start, ISL HV trip
4062	3/28 M-Tu	28.4	99.6	4041.2	3000.1 74.2%	2999.5 74.2%	L2 decision TO (bunch count err)
4063	3/29 Tu-W	25.2	95.8	3841.1	2945.5 76.7%	2941.4 76.6%	SVX HV trip RTserver
4065	3/30 W	1.7	90.3	467.8	372.2 79.6%	372.2 79.6%	Smooth ... until store lost
Total		149.9		21657.6	17358.8 80.2%	15576.6 71.9%	

Operational Improvements

- Thur.-Friday: Silicon in after 1 hour. Saturday-Today: Silicon in at start.
- Pulsar continues to drive L2 by default
  - Decision and control nodes were further upgraded yesterday
- Finished DAQ VRB firmware upgrade
  - Solved problem of VME bus contention and data corruption
- Switched to new TDC DSP code (Monday night)
  - Tried previously, but backed out until now, when VRB upgraded
- L3: transition speed-up and protection against proxy freezing during HRR
- XTRP: new features for faster load sequence
- Procmom: new scripts added
- Hardware EVB: tests of SCPU data integrity code
- And more: e.g. TriggerDB, COT IFIX, SVT tracer, b0lede00 fan
- VNODE2 (sends gas, chiller, etc. messages to status panels) disk replaced
- Caught up with quiet-time calibrations, after about a week without them

Operational Woes

- Rtserver (messages between systems) connections become unavailable
  - Temporarily fixed by disabling web servlets
  - Plan: upgrade kernel on RTserver machine, and add error checking
- Higher rate of "reformatter errors" recently (peaks at ~0.03% instead of 0%)
  - Comes and goes, and not yet attributed to any particular system changes
- A 4th hole in SVT appeared due to "bit 3" errors from ladder in SB1W3
  - Has acted up before. One idea is to adjust DOIM but has risks.
- XFT crosspoint board output spigot failed
  - Bypassed by using the output from a neighboring (XFT upgrade) board
  - Replaced with spare
- Unfortunately, muon trips have become somewhat expected...
  - Most frequently in CMX SW wedge 15 (sensitive to humidity)
    $\rightarrow$ 5 degree HV segment that can be left out, but with run still "good"
  - CMX NE wedge 20 (during access found that 3 large fans were off)
  - BMU tripped once Saturday and 6 times Tuesday

Access Tasks

2 hour controlled access (Wednesday):

- Silicon:
  - Swapped optical receiver (for SB3W9L3)
  - Investigated low rate in an ISL FIB (IB5W4/W5)
- Replaced another crate of TDCs
- CEM dead tube diagnosis
  - Fixed by PMT base replacement (5R01E)
- SVX crate fans replaced